surface

A Fourier representation for the plasma boundary is read from file.

[called by: xfocus.]

contents

1.1 overview

1. The Fourier harmonics of the plasma boundary are required in `plasma.boundary`, and the format of this file is as follows:

```
bmn        ! integers: number of Fourier harmonics for the plasma boundary;
bNfp       ! integers: number of field periodicity;
nbf        ! integers: number of Fourier harmonics for Bn;
-----------------------------------------------------------
bim(1:bmn) ! integers: poloidal mode identification;
bin(1:bmn) ! integers: toroidal mode identification;
bnim(1:bmn)! integers: poloidal mode identification, for Bn;
bnin(1:bmn)! integers: toroidal mode identification, for Bn;
-----------------------------------------------------------
Rbc(1:bmn) ! real    : cylindrical R cosine harmonics;
Rbs(1:bmn) ! real    : cylindrical R   sine harmonics;
Zbc(1:bmn) ! real    : cylindrical Z cosine harmonics;
Zbs(1:bmn) ! real    : cylindrical Z   sine harmonics;
bns(1:nbf) ! real    : B normal sin harmonics;
bnc(1:nbf) ! real    : B normal cos harmonics;
```

2. Note that immediately after reading (and broadcasting) `bin`, the field periodicity factor is included, i.e. `bin = bin * bNfp`.

3. Example of the plasma.boundary file:

```
#bmn bNfp nbf
4 2 1
#plasma boundary
# n m Rbc Rbs Zbc Zbs
0 0  3.00 0.0 0.0  0.00
0 1  0.30 0.0 0.0 -0.30
1 0  0.00 0.0 0.0 -0.06
1 1 -0.06 0.0 0.0 -0.06
#Bn harmonics
# n m bnc bns
0 0 0.0 0.0
```

Extended description.

[called by: notopt, plassf, rdknot, windsf.] [calls: .]

contents

surface.h last modified on 2017-05-17 17:06:31; Focus subroutines;